

### WATER PUMP KITS, P/N 5001595, 5007972 INSTALLATION INSTRUCTIONS

#### **APPLICATION**

Use this instruction sheet when installing the above water pump kits on *Evinrude*® outboards, 75 – 300 Hp.

### SAFETY INFORMATION

The following symbols and/or signal words may be used in this document:

# A

### **DANGER**

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

### $\Lambda$

## **WARNING**

Indicates a hazardous situation which, if not avoided, could result in death or serious injury

# A

## **CAUTION**

Indicates a hazardous situation which, if not avoided, could result in minor or moderate personal injury.

**NOTICE** Indicates an instruction which, if not followed, could severely damage engine components or other property.

These safety alert signal words mean:

ATTENTION!
BECOME ALERT!
YOUR SAFETY IS INVOLVED!

For safety reasons, this kit must be installed by an authorized *Evinrude®/Johnson®* dealer. This instruction sheet is not a substitute for work experience. Additional helpful information may be found in other service literature.

DO NOT perform any work until you have read and understood these instructions completely.

Torque wrench tightening specifications must strictly be adhered to.

Should removal of any locking fastener (lock tabs, locknuts, or patch screws) be required, always replace with a new one.

When replacement parts are required, use *Evinrude/Johnson Genuine Parts* or parts with equivalent characteristics, including type, strength and material. Use of substandard parts could result in injury or product malfunction.

Always wear EYE PROTECTION AND APPROPRIATE GLOVES when using power tools.

Unless otherwise specified, engine must be OFF when performing this work.

Always be aware of parts that can move, such as flywheels, propellers, etc.

Some components may be HOT. Always wait for engine to cool down before performing work.

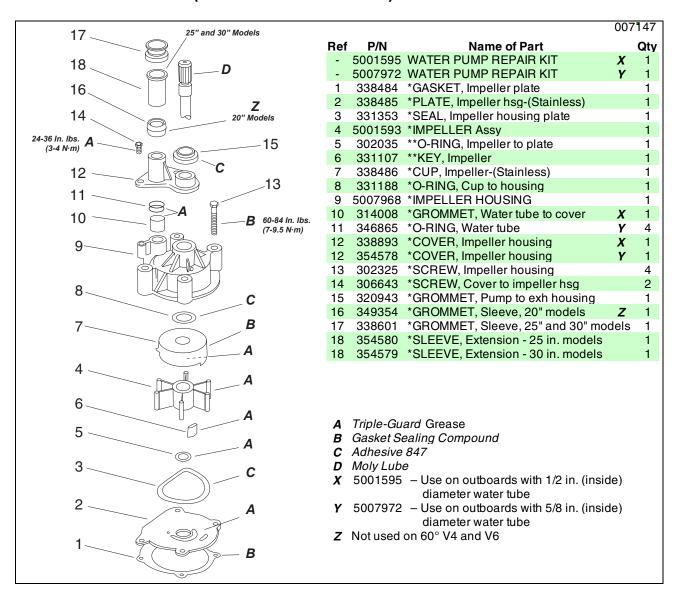
If you use procedures or service tools that are not recommended in this instruction sheet, YOU ALONE must decide if your actions might injure people or damage the outboard.

This document may be translated into other languages. In the event of any discrepancy, the English version shall prevail.

**TO THE INSTALLER:** Give this sheet and the operating instructions to the owner. Advise the owner of any special operation or maintenance information contained in the instructions.

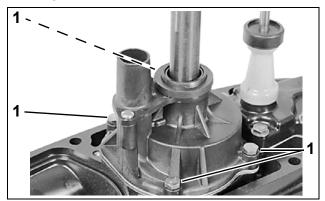
**TO THE OWNER:** Save these instructions in your owner's kit. This sheet contains information important for the use and maintenance of your engine.

## WATER PUMP KITS (Evinrude 75 – 300 HP)



#### DISASSEMBLY

Rotate the driveshaft counterclockwise to unlock the impeller key. Remove the four impeller housing screws.



1. Screws 31998

Slide the water pump off the driveshaft. Remove the impeller key, O-ring, impeller plate, and gasket.

Make sure gasket surface is clean and smooth.

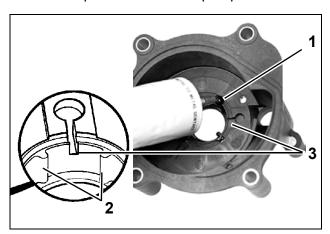


1. Gasket surface 006876

### **ASSEMBLY**

Apply a drop of *Adhesive 847* in the seal ring groove at each of the four ribs.

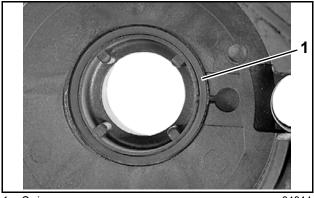
**IMPORTANT:** Do not allow any adhesive to get into the air bleed groove in the impeller housing. If this groove is blocked by adhesive, the pump will lose its prime and will not pump water.



- Seal ring groove
- 2. Ribs
- 3. Air bleed groove

2311 DR1185

Install the O-ring in impeller housing groove.

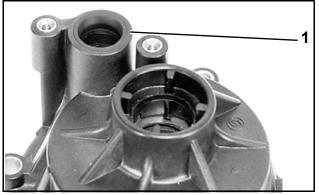


1. O-ring

Lightly coat the exterior rim of the impeller cup with *Gasket Sealing Compound*. Install the cup in the impeller housing. The cup locks in place in the housing with a square index tab.

Make sure vent hole in impeller cup is open.

On outboard models with 1/2 in. diameter water tube, install the water tube grommet with the inside taper facing up.

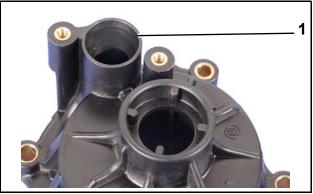


1. Water tube grommet

32000

On outboard models with 5/8 in. diameter water tube, apply a light coat of *Triple-Guard* grease to the inside of the impeller housing water tube cavity and to the water tube o-rings.

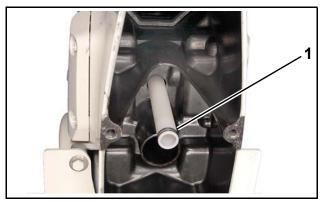
**IMPORTANT:** Impeller Housing, P/N 5007968, can be identified by a chamfer on the inside edge of the water tube fitting.



Chamfer

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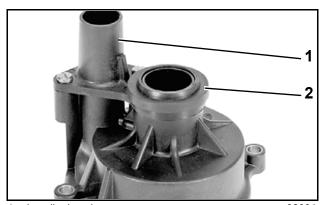
On outboard models with 5/8 in. diameter water tube, remove water tube from exhaust housing and replace o-rings. Apply a light coat of *Triple-Guard* grease to the o-rings and reinstall water tube in exhaust housing.



1. O-rings 007152

Apply *Triple-Guard* grease to screw threads and install the impeller housing cover. Tighten screws to a torque of 24 to 36 in. lbs. (3 to 4 N·m).

Apply *Adhesive 847* to flat side of the impeller housing grommet. Install the grommet, flat side down.

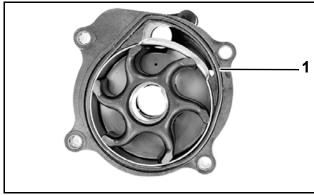


- Impeller housing cover
- 2. Impeller housing grommet

32001

Lightly coat the inside of the liner with *Triple-Guard* grease. With a counterclockwise rotation, install the impeller into the liner with the slot for the impeller key facing out.

Apply a thin bead of *Adhesive 847* in the seal groove, and install the special shaped O-ring seal.

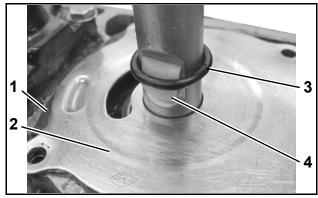


1. O-ring

34815

Apply *Gasket Sealing Compound* to both sides of a new impeller plate gasket. Install the gasket and impeller plate.

Apply *Triple-Guard* grease to a new impeller O-ring. Slide the O-ring down the driveshaft and half way over installed impeller key to temporarily hold key in place.



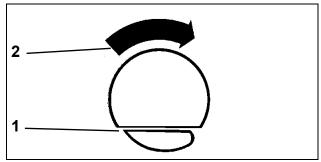
Impeller plate gasket

006871

- 2. Impeller plate
- 3. O-ring
- 4. Impeller key

The sharp edge of the key is the leading edge in clockwise rotation.

Slide the water pump down the driveshaft. Align impeller slot with the impeller key. Rotate the driveshaft to engage the key with the impeller, and slide water pump down over key. Be sure impeller key does not fall out of position.



1. Sharp edge of drive cam

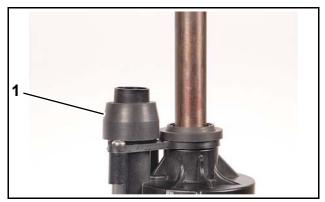
Direction of driveshaft rotation

CO2995

**NOTICE** Make sure the impeller engages the impeller key. Serious powerhead damage will result if impeller key is not in place.

Align the impeller housing with the gearcase. Apply *Gasket Sealing Compound* to threads of the four impeller housing screws. Tighten the screws to a torque of 60 to 84 in. lbs.  $(7 \text{ to } 9.5 \text{ N} \cdot \text{m})$ .

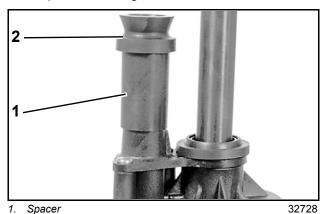
On 20 in. outboard models (except 60° V4 and V6), place Grommet, P/N 349354, on housing cover.



Grommet

007150

On 25 in. and 30 in. outboard models, place the appropriate water tube sleeve and grommet on the impeller housing cover.



- Spacer
- Grommet

After water pump is assembled completely, rotate driveshaft counter clockwise 1/4 turn to unlock and release impeller and key from driveshaft.

Next, pull up on driveshaft and turn clockwise to lock impeller to shaft. This process increases pump efficiency by locking the impeller in a lower position on the driveshaft.



007078

**NOTICE** Before installing gearcase, shift rod adjustment MUST be checked. Refer to appropriate Service Manual.

Install gearcase assembly on outboard. Refer to appropriate Service Manual. Tighten gearcase mounting screws to a torque of:

- 3/8 in. screws 26 to 28 ft. lbs. (35 to 38 N·m)
- 7/16 in. screws 45 to 50 ft. lbs. (61 to 68 N·m)

## **WARNING**

Failure to properly tighten all gearcase retaining screws can result in gearcase loss and loss of boat control at high speed.

Start outboard to check water pump operation.